// WATERSTOPS · CONCRETE JOINTS

Petroseal PVC Waterstop

Flexible PVC waterstop profiles for watertight concrete construction and movement joints

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Description

Petroseal PVC Waterstops are extruded flexible PVC profiles cast into concrete at construction and movement joints. They form a continuous barrier against water passing through the joint in basements, water tanks, tunnels and other water-retaining structures.

Profiles are chosen by joint type and water head: centre-bulb for movement joints, dumbbell for construction joints, and kicker type where the profile is set into a kicker or on one face.

Typical uses

- Basement raft and wall construction joints
- Water tanks and reservoirs
- Tunnels and underground structures
- Swimming pools and water-retaining structures
- Dams, canals and water treatment plants

Features & benefits

- High watertightness at joints, suitable for water heads up to 10 m
- Flexible and durable in concrete
- Installed during concreting, so there are no extra trades later
- Joints can be heat-welded on site

Profiles

PROFILE	JOINT TYPE	WIDTHS AVAILABLE
Centre bulb	Movement / expansion	150 / 200 / 250 mm
Dumbbell	Construction	150 / 200 / 250 mm
Kicker type	Construction (externally placed)	150 / 200 / 250 mm

Material properties

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Material	—	—	Flexible PVC (PVC resin, stabiliser, plasticiser)
Density	ASTM D792	g/cm³	1.27
Hardness	ASTM D2240	Shore A	75 ± 5
Tensile strength	ASTM D412	MPa	≥ 15
Elongation at break	ASTM D412	%	≥ 300
Tear strength	ASTM D624	N/mm	≥ 18
Water absorption (24 h)	ASTM D570	% by weight	≤ 1.5
Ash content	—	% by weight	≤ 5

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Hydrostatic head	—	m	Up to 10
Service temperature	—	°C	−20 to +50
Roll length	—	m	15 / 20 / 25

Application guidance

- Select the profile for the joint type and water head at the joint.
- Internal profiles (centre bulb, dumbbell): position centrally across the joint, half in each pour. Kicker-type profiles sit on the external face as detailed. Support with split formwork or clips so the profile stays straight and does not fold during concreting.
- Fix to reinforcement with hog rings or eyelets at the edge flanges only, at about 300 mm centres. Never pierce the bulb or the central web.
- Join straight runs by heat welding with a thermostatically controlled splicing iron. Use factory-made intersections (tees, crosses, L-pieces) where possible.
- Vibrate concrete carefully around both flanges to avoid honeycombing. Avoid displacing the profile.
- Keep the exposed half clean and undamaged until the second pour.

Limitations

- Lapped or taped joints are not watertight. Use welded joints only.
- Do not install in freezing conditions, or below +5 °C or above +45 °C air or surface temperature.
- Not a substitute for a waterproofing membrane where the design requires one.

Packaging & supply

- Supplied in rolls of 15, 20 or 25 m depending on profile and width

Storage & shelf life

- Store in a dry area between +5 °C and +45 °C. Protect from heat, freezing and direct sunlight.
- Keep free from oil, grease and mud.
- Shelf life: unlimited when stored correctly.

Health & safety

- Refer to the product Safety Data Sheet (SDS) before use.
- Wear gloves, safety glasses and appropriate work clothing during handling and application.
- Dispose of offcuts, packaging and residues in accordance with local regulations.
- Heat welding gives off fumes. Weld in ventilated areas and avoid scorching the PVC.

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